TempAlert

Inquiry the A/C Status and temperature with a FREE Call!

Monitoring temperature and Operatie A/C with SMS!

Automatically Control the temperature in expected range!

Automatically turn OFF A/C while nobody in the Room!

GSM Temperature Alarm
GSM SMS Air-Conditioner IR Controller

KING PIGEON

User Manual

Ver 1.0

RTU5014

Date Issued: 2013-07-12

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This handbook has been designed as a guide to the installation and operation of RTU5014 GSM SMS Air-Conditioner IR Controller.

Statements contained in the handbook are general guidelines only and in no way are designed to supersede the instructions contained with other products.

We recommend that the advice of a registered electrician be sought before any Installation work commences.

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1. Brief introduction

The GSM SMS Air-Conditioner IR Controller is special for operating air-conditioner by SMS commands, monitoring onsite temperature. Also, the GSM SMS Air-Conditioner IR Controller can be used for automatically turn on Heating function when low temperature alarm occurrence, or turn on COLD function when high temperature alarm occurrence, or automatically turn OFF the Air-Conditioner while nobody onsite.

The GSM SMS Air-Conditioner IR Controller can be used for temperature monitoring, Class Room, Public Room, Waiting Room, Hospital, Stations, Fresh Food Warehouse, Office, Meeting Room, Laboratory, Library and anywhere that need intelligent manage air-conditioner or monitoring temperature or control temperature in expected range.

The GSM SMS Air-Conditioner IR Controller equips professional air-conditioner IR encoder, which with the compatible of almost all of the brand air-conditioners. The user can send SMS Commands to turn ON/OFF, change the air-conditioner mode to Cool, Dry, Heat and Auto.

The GSM SMS Air-Conditioner IR Controller inbuilt a temperature sensor inside (measure range:–55°C to +125°C), the temperature sensor also can be extend to outside if required. The user can setup high and low threshold value of the temperature, when occurrence, it will send SMS text message to alert the authorized users immediately.

Just dial from Authorized User number, the GSM SMS Air-Conditioner IR Controller will reject at the first “Ring”, no communication cost, then return the current temperature, Air-Conditioner Status, AC power status and other information. Also, the user can setup the interval time to report these information to authorized number automatically.

Moreover, the GSM SMS Air-Conditioner IR Controller supports intelligent management, while the temperature higher or lower than the threshold value, it can automatically turn on the air-conditioner and change to the preset mode. also, it can automatically turn off the air-conditioner while detecting nobody movement in the setting time to save power consumptions.

2.Safety Directions

Safe Startup
Do not use GSM unit when using GSM equipment is prohibited or might bring disturbance or danger.

Interference
All wireless equipment might interfere network signals of GSM unit and influence its performance.

Avoid Use at Gas Station
Do not use GSM Gate Opener at a gas station. Power off GSM unit when it near fuels or chemicals.

Power it off near Blasting Places
Please follow relevant restrictive regulations. Avoid using the device in blasting places.

Reasonable Use
Please install the product at suitable places as described in the product documentation. Avoid signal shielded by covering the mainframe.

Use Qualified Maintenance Service
Maintenance can be carried out only by qualified maintainer.

3. Standard Packing List

GSM SMS Air-Conditioner IR Controller X 1;GSM Antenna X 1(Inbuilt);DS18B20 Temperature X1(Inbuilt); Backup Battery X 1 (Inbuilt);User Manual X 1.

Optional Accessories:
DS18B20 Temperature Sensors, 12V1A AC/DC Adaptor, Wired PIR Motion Detector(PIR-01or CPIR-03)

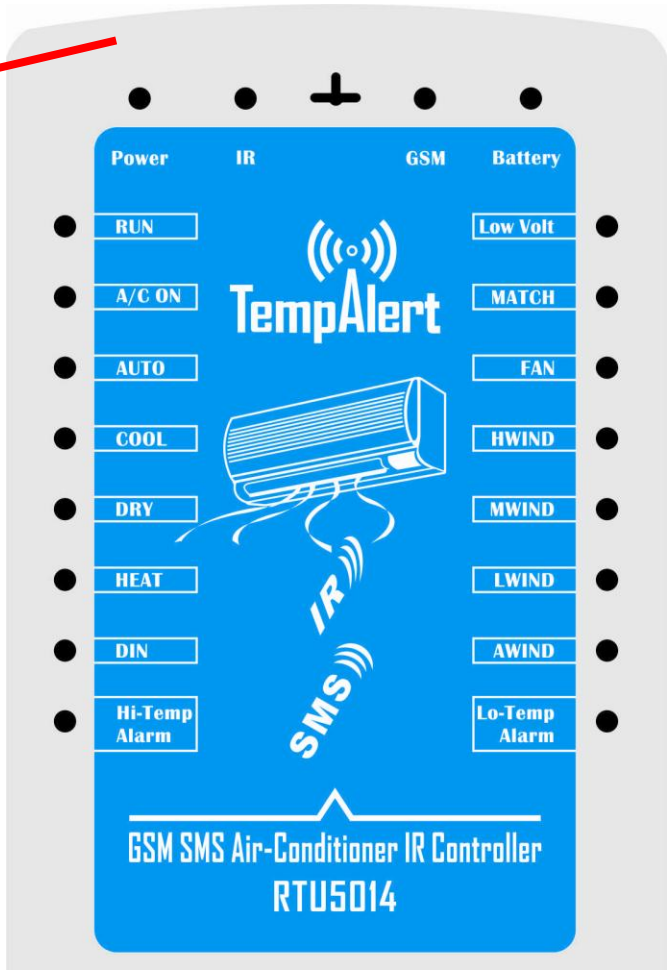
4. Mainly Features

- Can be operated from anywhere, no distance limitation;
- No call charges for inquiry. the GSM SMS Air-Conditioner IR Controller rejects the call from authorized number then return status on the first 'ring';
- Multiple applications. (temperature monitoring, intelligent air-conditioner management);
- Upto 6 authorized phone numbers, each number can be used to receive call or SMS or both of call and SMS while alarm occurrence;
- Intelligent professional air-conditioner IR Encoder with compatible of almost all of the brand air-conditioners(See Air-Conditioner Compatibility of RTU5014.);
- One human movement detector, if no-body movement in the room then will turn off the air-conditioner automatically. It is useful for saving power consumption in public rooms;

- One Temperature Sensor inbuilt, external connection is available, measures temperatures from –55°C to +125°C (–67°F to +257°F), 0.5°C accuracy from –10°C to +85°C, can setup high and low temperature alarm threshold value to alert the authorized users and automatically turn on the Air-Conditioner to preset working mode.
- Supports 4 quick operation combine commands, the users can quickly operate the air-conditioner by only one simply SMS command;
- External AC Power monitoring, AC On/OFF will send SMS to authorized phone numbers;
- Timer Report—Can setup every x hours automatically send its status/Value to the authorized numbers;
- Rechargeable Backup Battery inside can last 8hours;
- Secure - Using caller ID and password for identification, unknown callers are ignored;
- Programmable by SMS Commands with password protection;
- Based on GSM Network, applied to many applications.

5. Physical Layout and Installation Diagram

5.1 Control Unit physical layout

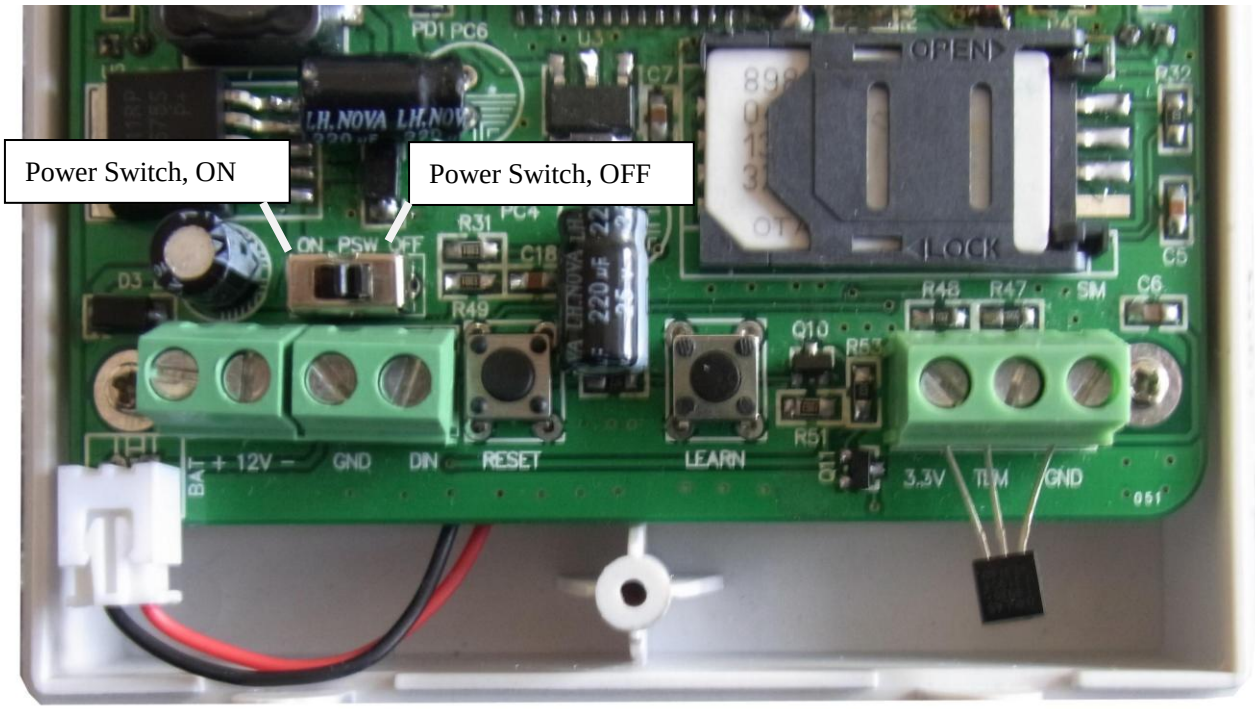


LED Indicator Instruction

POWER	External DC Power status LED indicator.
IR	IR transmission indicator, when transmission IR will on, otherwise will off.
GSM	GSM Module Status indicator, registering GSM Network flicks quickly, registered successful flicks slow. No GSM Signal will be off.
Battery	Charging battery will on, otherwise will off.
RUN	GSM Unit Status, ON stands for switched on, off stands for switched off.
Low Volt	Low voltage indicator, will on when backup battery low voltage till recovery.
A/C ON	Air-Conditioner ON.
MATCH	Matching IR Coding of the air-conditioner indicator, only in matching code status will on, otherwise will off.
Others	The air-conditioner status indicators. Will on if the related function is on. Otherwise will off.

5.2 Interface Instructions for installation

At the backside of the panel, please use the tool to remove the screw, and you can see the below:



Connector Interface		
DC9~18V	**+**	DC9~18V positive input, 1A, for power on the GSM Unit.
	–	DC9~18V negative input, 1A, for power on the GSM Unit.

Digital Input	DIN	Digital Input, Dry Contact, for human movement detector.
	GND	Digital GND
Temp. Input	3.3V	3.3V Direct Current Output Positive, for 3.3V Temperature Sensor.
	Temp.	Temperature Sensor input, DS18B20 sensor only.
	GND	Temperature Sensor input GND

5.3 Recommend Detectors

Recommend Detectors		
Name	***Descriptions***	***Photo***
PIR-01 Wired wall installtion PIR Motion Sensor	For Human movement detection in indoor; Suitable wall-installation type; DC12V Powered up; Output Type: NC (Default is NC). Gross Weight: 0.16Kg External Size: 10CM*6.5CM*5.5CM	
CPIR-03 Wired Ceiling PIR Motion Sensor	For Human movement detection in indoor; Suitable Ceiling installation type; DC9~16V Powered up; Output Type: NC (Default is NC); Gross Weight: 0.18Kg External Size: 11CM*11CM*4.0CM	
DS18B20 Temperature Sensor	Replace the inbuilt temperature sensor, can be extend the temperature sensor outside the housing; Measurement range of –55°C to +125°C and is accurate to _0.5_C over the range of –10°C to +85°C. Wire length is 100cm.	

6.Matching Air-Conditioner Operation

6.1 Initialize the GSM unit

The GSM Unit should be initialized before programming and operating it. please follow below steps to initialize it. After initialized, the parameters will set as factory default.

1) Switch off the GSM Unit and insert the SIMCard firstly, connect the battery;
2) Press the RESET button;
3) Switch the Switch to ON side to powered on the GSM Unit, holding 5seconds, after heard 1Second Di sound alert then loose the RESET Button.
4) Restart the GSM unit then will enter to work mode.

6.2 Matching the GSM Unit and Air-Conditioner

After initialized the GSM Unit, please follow below steps to match the GSM SMS Air-Conditioner IR

Controller to compatible with the air-conditioner.

1) Find out the air-conditioner menu code, see Affix Table 1;
2) Connect the Air-Conditioner to AC power, and power on it;
3) Switch off the GSM Unit firstly, and press the Learn button and hold it, the LEARN LED will be on;
4) Switch on the GSM unit, it will make two didi short sounds, stands for the GSM unit registering the GSM Network, after registered the GSM Network, it will alert by two quickly sounds.
5) Loose the Learn Button, and edit the SMS content: **pwd+MENU+#+Menucode+#** then send to the GSM Unit; E.g: for LG Air-Conditioner, the default password is 1234, and LG Menu code is 9(See the table), so send 1234MENU#9# to the GSM unit to match them.The SMS command must be **CAPTIAL LETTER.**
6) When the GSM Unit received this SMS, will alert by two quickly didi sounds;
7) Put the GSM Unit IR Transmitter towards to the air-conditioner, and away the air-conditioner less than 2meters;
8) Press the Learn Button again, the MATCH LED will on, and the GSM Unit will send IR signal of the ON function to the Air-Conditioner to match it, the A/C ON LED will on, and IR LED will be on while every IR transmission.
9) After the air-conditioner received the IR signal, it will response to ON function firstly, and then will automatically match the Fan, Temperature plus, Temperature Reduce, and OFF code, after matched the OFF code, the MATCH LED will be off, and the air-conditioner will be switched off. Restart the GSM unit to save this code, the matching code operation finished.
10) If the air-conditioner received the IR Signal but no response the ON function, means this IR Code unmatched to the air-conditioner, please press the Learn button once to stop the matching, and press it again to let it match the next IR Code of this Air-Conditioner Brand till it successful.
11) Test how to operate the air-conditioner via GSM SMS Commands, please see chapter 8.

7. Programming

Notice:

1. *The default Password is **1234**.*
2. *Before powered on the GSM Unit, please insert the SIMCard inside,after power on the unit, the buzzer will alert by 1 long Di sound to alert, if the MCU can not communicate to the GSM Module or not find out the SIMCard or Simcard installed failure or no gsm signal, the GSM Unit will restart automatically.*
3. *All the settings are through SMS commands, please edit the below SMS commands in your cell phone, then send to the GSM unit. The unit cannot support PIN Code Protected SIMCard.*
4. *You can program the GSM unit with SMS commands using your phone. It is safe to do so because in addition to the fact that other people may not know the number of the SIM inserted in it, we also use a Password that makes it impossible for anybody, who doesn't know it, to access the system by chance.*
5. *Remember that commands must be **CAPITAL LETTERS**. It is PWD not pwd, CAP not Cap etc. Don't add spaces or any other character.*

6. *The **pwd** in the commands is means the password, when you use it, please in stand of it by the digital number; the capital letters **PWD** is the command letter, use PWD directly.*
7. *In some GSM operators they use different SMS parameter; the units can't return the SMS confirmation in some gsm operators, but it can performance the functions correctly. Also, you can try to add the country code before the number, see the below settings:*

> ***For example:***
>
> E.g.: the country code is **0086**, or **+86**.
>
> The user cell phone number is **13600000000** and has been assigned as a SMS Alert number, the simcard number in the panel is **13512345678**.
>
> When you setup the number as the authorized number, please setup as 008613600000000 or +86136000000000. Not 13600000000.

8. *If the password is correct but the the command is incorrect, the RTU5014 will return:* **SMS Format Error, Please check Caps Lock in Command!** *So please check the Command, or add the country code before the telephone number or check the input is in ENGLISH INPUT METHOD and CAPS LOCK. If password incorrect then will not any response SMS.*
9. *Once the GSM Unit received the SMS Command, will return SMS to confirmation, if no SMS return, please check your command or resend again.*
10. *The SMS commands that you will certainly use in the GSM units are the following:*

7.1 Setup New Password

pwd+P+newpassword

pwd is the GSM Unit password, default is 1234.
P is the identification character of this command.
if successful, the unit will return: **Set Success.** The password is 4digits.

Example

The original password is 1234, you want change it to 6666, then you can send the command below: ***1234P6666***

7.2 Setup Authorized number

The GSM Unit supports upto 6 authorized phone number, each number can be setup as different rights to receive alarm message.

pwd+#+Serial Number+A+Function 1 Code+#+Telephone Number+#

Serial Number = 1~6.
A is the identification character of this command.
Function 1 Code =1,2,3. It is for alarm receiving attribute setting.
=1 stands for when alarm occurrence, the GSM unit will dial as well as send SMS to this number.
=2 stands for when alarm occurrence, the GSM unit only send alarm SMS to this number, doesn't dial.
=3 stands for when alarm occurrence, the GSM unit only dial this number, doesn't sends SMS.
Telephone Number: authorized number, must include country code, max. 18 characters,

E.g.: if you want to setup 13512345678 as the third authorized number, and the password is 1234, country code is 0086, when alarm occurrence this number can receive both SMS and incoming from the GSM Unit, Then you can send **1234#3A1#008613512345678#** to the GSM Unit. Will return:

Tel1: Empty
Tel2: Empty
Tel3: 008613512345678-1 stands for function 1 code =1.
Tel4: Empty
Tel5: Empty
Tel6: Empty

※Inquiry the Authorized number

pwd+A+#

After received this command, the GSM Unit will return the SMS as abovementioned.
E.g.: If you want to know the authorized number list, and the password is 1234, then you can send **1234A#** to check it.

※Remove the Authorized Number

pwd+Serialnumber+A+#

Please overwrite it with another new number or removed it by this SMS Command.

Tips: *If setup the authorized number as receive dial from the GSM unit, the GSM unit will dial them one by one once or till answered the call.*

7.3 Setup Temperature High/Low threshold Alarm Value

The GSM Unit inbuilt a temperature sensor already, measures temperatures from –55°C to +125°C (–67°F to +257°F), 0.5°C accuracy from –10°C to +85°C, but the temperature accuracy will be effected by the GSM Unit, if the user want to extend it to other place or want to get accurate temperature, the user can extend the DS18B20 Temperature Sensor. The GSM Unit reserved 3.3V power for this DS18B20 Temperature Sensor to save the wiring cost.
The user can setup temperature high and low threshold value, when the onsite temperature high or low than the threshold value, will send SMS or dial to the authorized numbers.
Please see below to setup the threshold value:

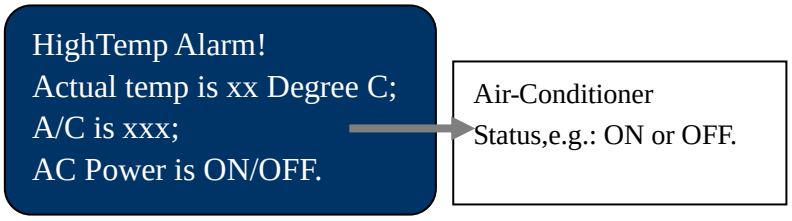
If the temperature unit is Celsius, the command is:

For setup the High threshold value: **pwd+H***+ENS***+#**

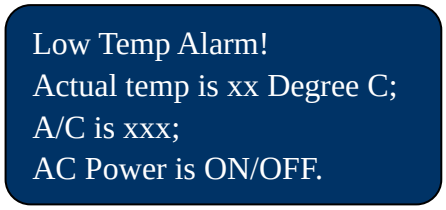
For setup the Low threshold value: **pwd+L***+ENS***+#**

After the GSM Unit received these commands, will return: H***+ENS***# or L***+ENS***#.

H*:** H is the identification character of this command. Stands for the high temperature value, ***=-99~999, =999 stands for disable this function(Default), when the temperature higher than this value, will send SMS and dial to the authorized numbers. The SMS Content is:



L*:** L is the identification character of this command. Stands for the low temperature value, ***=-99~999, =99 stands for disable this function(Default), when the temperature lower than this value, will send SMS and dial to the authorized numbers, The SMS Content is:



ENS*:** ENS is the identification character of this command. Stands for the ensure time of temperature exceed the pre-set value, means when temperature exceed the value and last for how many seconds then consider is an alarm event. ***=000~999, default is 300 seconds, this parameter is in order to avoid false alarm.

Tips: *The temperature value can accept minus symbol and decimal , like -20 degree then please input -20, for temperature value >0, then no need input +, e.g. 20 degree then please input 20, not +20. Also can setup as decimal, e.g.: 19.50*

※Setup Air-Conditioner response to the temperature High/Low threshold value alarm

The GSM Unit supports intelligent management temperature, when the temperature higher than the threshold value, it can automatically turn on the air-conditioner to cold or other mode, when the temperature lower than the threshold value, it can automatically turn on the air-conditioner to heat or other mode. This is very useful for the applications that required keep the environment temperature in the expected range. Like fresh food warehouse, public room, hospital and so on.

Please see below to setup them:

High Temperature Alarm switch on the air-conditioner SMS Command:

pwd+HTON+#+Groupcode+#

After the GSM unit received, will return: H***+ENS***#+Groupcode#

HTON: HTON is the identification character of this command.

Groupcode=AA,BB,CC,DD or 99, a quickly control Combination command, see **8.4 Quickly Control Combination Commands**, if the Group=99 stands for disable this function. Default is disabled.

When switched on the air-conditioner by the condition of this command, will send SMS to authorized numbers, the SMS Content is: High Temp. alarm Switch on the A/C.

Low Temperature Alarm switch on the air-conditioner SMS Command:

pwd+LTON+#+Group+#

After the GSM unit received, will return: H***+ENS***#+Groupcode#
LTON: LTON is the identification character of this command.
AA,BB,CC,DD or 99, a quickly control Combination command, see **8.4 Quickly Control Combination Commands**, if the Group=99 stands for disable this function. Default is disabled.

When switched on the air-conditioner by the condition of this command, will send SMS to authorized numbers, the SMS Content is: Low Temp. alarm Switch ON the A/C.

※Inquiry Settings

The user can send SMS Command to inquiry the settings, the command is:

pwd+#+T+#

After the GSM unit received, will return: H***+ENS***#+Group#
L***+ENS***#+Group#

7.4 Setup Nobody Onsite Automatically Switch OFF the Air-Conditioner

The GSM Unit supports intelligent management, the user can setup how long nobody onsite then switch off the air-conditioner automatically to save the power consumption. This is very useful in lots of public rooms, e.g.: Class Room, office room, and so on. The GSM unit will defect the connected wired PIR Motion Detector, if the any person movement then will active the wired PIR Motion sensor continually, and the GSM unit will not send IR signal to switch off the air-conditioner, if the PIR motion sensor hasn't been activated continually, then stands for nobody onsite, the GSM unit will send IR signal to switch off the air-conditioner. The user can setup how long nobody movement then switch off the air-conditioner automatically.

The SMS Command is:

pwd+B+Time+#+SMSTextmessage+# or **pwd+B+Time+##**

B: B is the identification character of this command.
Time: =000~999, unit is minute. Stands for how long not active the Wired PIR Motion Detector should switch off the air-conditioner, default is 000,stands for disable this function.
SMSTextmessage: Stands for SMS text message content that will send to the first Authorized Number while switch off the air-conditioner by this condition.Max. 60characters,
If use the pwd+B+Time+## command, then the existing SMS text message will not be changed.
After the GSM Unit received, will return: Time#SMSTextmessage#

※Inquiry Settings

The user can send SMS Command to inquiry the settings, the command is:

pwd+#+B+#

After the GSM unit received, will return:Time#SMSTextmessage#

Tips: *1).This function only valid when the air-conditioner was switched on;*

2) Before change to Enable this function, please connect the PIR Motion detector firstly.

7.5 Setup Automatically Report Time

The user can setup interval time to report the GSM Unit current status to the first authorized number.
The SMS command is:

pwd+D+#**

D*:**D is the identification character of this command. **=0~99, unit is hour, stands for how many hours does the GSM Unit should report its current status to the first authorized number. Default is 0, stands for disable this function.

7.6 External AC Power Status Monitoring

The GSM Unit will automatically monitoring the external AC power, while AC power goes off, will send AC Power Goes OFF to the first authorized number immediately, and while the external AC power goes on, will send AC Power Goes ON to the first authorized number immediately. When the backup battery voltage lower than 3.6V, will send the SMS Backup Battery low voltage. to the first authorized number immediately.

8. Operation Instructions

8.1 Inquiry the IMEI Code and firmware version

The user can inquiry the IMEI Code and the firmware version by SMS command, the SMS Command is:

pwd+Q

After the GSM Unit received, will return:

IMEI Code: xxxxxxxxxxxxx
Version:V**

8.2 Inquiry the GSM Unit current status

The user can inquiry the GSM Unit current status by dial in the GSM unit through authorized numbers or send SMS command.
The SMS Command is:

pwd+EE

Will return:

Actual temp is xx Degree C;
A/C is xxx;
AC Power is ON/OFF;
GSM Signal is xxx.

Tips: *The GSM Signal value from 15~30 stands for the gsm signal is normally.*

8.3 Remote Operate the Air-Conditioner by SMS Commands

The user can send SMS command to control the Air-Conditioner, the SMS command list see Affix Table 2.

8.4 Quickly Control Combination Commands

The GSM Unit supports 4 Group quickly control Combination commands in order to quickly and easily to operate the air-conditioner, no need to send separate command one by one.

※Quickly Control Combination Commands

Serial No.	SMS Command	Return SMS	Example
1	pwd+AA	Executed	1234AA 1234 is the password.
2	pwd+BB	Executed	
3	pwd+CC	Executed	
4	pwd+DD	Executed	

※Definition the Combination Command

The quickly control Combination command can be defined by user self. The commands are below:

pwd+#+Groupcode+#+ON+#+Command1+#+Command2+#+Command3+#

GroupCode: =AA,BB,CC,DD, stands for the 1st group Combination command, 2nd group Combination command, 3rd group Combination command, 4th group Combination command.
ON: Stands for Status Mode command, =ON. Cannot be OFF.
Command1: Stands for Function Mode Command,=AUTO,COOL,HEAT,DRY,WIND;
Command2: Stands for Wind Mode command, =LWIND,MWIND,HWIND,AWIND;
Command3: Stands for Change Temperature command, =Txx, the xx is the value of the temperature.

Tips: *The Command1~Command3 cannot be blank, these commands are incorrect:*

pwd+#+Groupcode+#+ON+#+Command1+#+Command2+#

pwd+#+ Groupcode+#+ON+#+Command1+#+Command3+#

pwd+#+ Groupcode+#+ON+#+Command2+#+Command3+#

Example:

Setup the first group quickly control Combination command as: switch on the air-conditioner, clod mode, middle wind, and temperature is 20degree. If the password is 1234, then please send the SMS Command:

1234#AA#ON#COOL#MWIND#T20# to the GSM Unit, after the GSM unit received it, will return SMS: AA#ON#COOL#MWIND#T20#.

After you setup it, then when you send 1234AA to the GSM unit, it will carry out these commands one by one.

※Delete the Quickly Control Combination Command

The user can delete the Quickly Control Combination Commands by SMS Command, the SMS Command format is below:

pwd+#+Group Code+#

GroupCode: =AA,BB,CC,DD, stands for the 1st group Combination command, 2nd group Combination command, 3rd group Combination command, 4th group Combination command.

※Inquiry Settings

The user can send SMS Command to inquiry the settings, the command is:

pwd+#+M+Group Code+#

After the GSM unit received, will return: Groupcode#ON#Command1#Command2#Command3#

Example:

If password is 1234, then send 1234#MBB# to inquiry the 2nd Group Code settings.

9.Technical specifications

Rated Voltage: 9~18V 1A DC
Standby Consumption: 30~35mA (Not charging battery)
Working Consumption: 400mA
Working temperature: -10℃～+60℃
Storage temperature: -20℃～+60℃
Relative humidity: 10-90%, No condensation
GSM frequency: 900/1800MHz(Default) or 850/1900Mhz (Optional)
SIM Card: Supporting 3V SIM Card
GSM Antenna: 50 Ω SMA Antenna interface
Communication protocol: GSM PHASE 2/2+ (include data service)
Digital Inputs:1 (Dry Contact, For human movement detection)
Temperature Sensor Inputs: 1(inbuilt one DS18B20, can extend to external, –55°C to +125°C (–67°F to +257°F), 0.5°C accuracy from –10°C to +85°C,)
Backup Rechargeable Battery: 3.7V@900mAH lithium batteries, standby 8 hours
External Size: 150mmX92.6mmX30mm (WXDXH)
Net Weight: 0.50Kg

10.Warranty

1) This system is warranted to be free of defects in material and workmanship for one year.
2) This warranty does not extend to any defect, malfunction or failure caused by abuse or misuse by the Operating Instructions. In no event shall the manufacturer be liable for any alarm system altered by purchasers.

11.Affix Tables

Table 1: Brand Air-Conditioner Menu Code

Brand Air-Conditioner Menu Code						
Menu Code	**A/C Brand**	**A/C Type Qty**		**A/C Brand**	**A/C Brand**	**A/C Type Qty**
0	Gree	21		26	Samsung	20
1	Aucma	20		27	Toshiba	10
2	Haier	19		28	Hitachi	20
3	AUX	20		29	National/ Panasonic	30
4	Midea	20		30	carrier	20
5	CHANGHONG	20		31	FUJISU	20
6	Chigo	20		32	Sharp/Sampo	20
7	Huabao	10		33	Daikin	20
8	Kelon	10		34	HYUNDAI	10
9	LG	10		35	Kolin	10
10	TCL	20		36	Shangling	7
11	Galanz	10		37	Electrolux	4
12	Hualing	20		38	Yingyan	9
13	Chunlan	10		39	Yutu	7
14	FRESTECH	10		40	Yangzi	6
15	Hisense	10		41	SAST	3
16	Weili	34		42	Chuanghua	4
17	Shinco	10		43	XIAOYA	3
18	GALUHA	7		44	Xinle	4
19	FEILU	10		45	KONKA	2
20	DongBao	20		46	Whirlpool	5
21	Dongxinbao	9		47	YORK	5
22	Changling	12		48	Panda	3
23	Lanbo	13		49	KangLi	3
24	Sanyo,NEC	52		50	ROWA	3
25	Mitsubishi	49				
Other A/C Brand Combination Menu Code						
Menu Code	**A/C Brand**	**A/C Type Qty**		**A/C Brand**	**A/C Brand**	**A/C Type Qty**
56	SUNBURG	4		58	AKIRA	2
	Daotian	4			KLIMATAIR	4
	TOYO	4			LOREN-SEBO	3
	GLEE	1			NIKKO	2

	Huawei	1			ELCO	1
	KT02_D001	1			ELECTER	6
	KT02_D002	1			FEDDERS	1
	KTY001	1			SPEED	1
	KTY002	1		59	TADIAIR	4
	KTY003	1			TADIRAN	9
	KTY004	1		51～55	100 types of Other Small Brands	
	KTY005	1		60～64	107 types of Other Small brands	
57	ALPIN	4				
	AMCOR	7				
	AMICO	1				
	BOERKA	1				
	CONSUL	1				
	JOHNSO	1				
	NISO	1				
	SOGO	1				
	UNI_AIR	2				
	NORCA	1				

Tips: *A/C Type Qty: Stands for how many types air-conditioners under this Brand, and each type with unique IR Code. E.g.: LG has 10 types, means it has 10 groups IR code, so while match the LG Air-Conditioner, must setup the menu code=9 firstly, and then continue tol match the LG IR Code Groups from its first Group till it matched. The matching operation please see below mentioned.*

Table 2: Operation SMS Command Table

Operation SMS Command Table				
Mode	**Function**	**SMS Command**	**Return SMS**	**SMS Example**
Status Mode	ON	pwd+ON	A/C ON	1234ON (1234 is password)
	OFF	pwd+OFF	A/C OFF	1234OFF (1234 is password)
Function Mode	AUTO	pwd+AUTO	Mode is Auto	
	COLD	pwd+COOL	Mode is Cool	
	Heat	pwd+HEAT	Mode is Heat	
	Dry	pwd+DRY	Mode is Dry	
	Wind	pwd+WIND	Mode is WIND	
WIND Mode	Low Wind	pwd+LWIND	Low wind	
	Middle Wind	pwd+MWIND	Middle wind	
	High Wind	pwd+HWIND	High wind	
	Auto Wind	pwd+AWIND	Auto wind	
Temperature	Change	pwd+T+Value	Set as xx	1234T16 to change the

Mode	Temperature		Degree C.	temperature to 16degree.

Table3: Quickly Control Combination Command Definition

After setup the GSM Unit please write down the definition, it is very useful for saving your time for you review . After installed successful, then tear off this for review in further.

Quickly Control Combination Command Definition					
Serial No.	**SMS Command**	**Combination Command Definition**			
1	pwd+AA				
2	pwd+BB				
3	pwd+CC				
4	pwd+DD				
High Temperature Threshold Value		°C	Alarm will Switch ON Air-Conditoner:	Yes	No
Low Temperature Threshold Value		°C	Alarm will Switch ON Air-Conditoner:	Yes	No
Air-Conditioner Brand			Menu Code=		

Table 4: Installation Schedule

Before setup the GSM Unit please write down the installation plan firstly, it is very useful for saving your test and installation time. After installed successful, then tear off this Schedule for review in further.

Installation Schedule					
SIMCard Number in the GSM Unit: _____					
Installation Address: _____ _____					
Serial Number	**User Name**	**Phone Number**	**Alert Method Authorized Type**		
			SMS&Call	**SMS**	**Call**
1					
2					
3					
4					
5					
6					
Notice: Please mark V if for enable and X for disable.					

The End!
Any questions please help to contact us feel free.
Http://www.GSM-M2M.com